Submission to RAC (7/13/88) - Anderson/Blaese/Rosenberg

Brief Scientific Abstract

An aliquot of TIL would be removed at the time that they have reached log phase growth. The aliquot (representing no more than 1/3 of the total TIL population) would be incubated with the retroviral vector N2 (containing the Neo^R gene). This treated aliquot would be grown in G418 until all of the cells contain, and are expressing, the Neo^R gene. The cells would be tested to insure that they are virus-free, have a similar surface antigen pattern to the parent TIL population, and have not changed significantly in their properties (including continued dependence on exogenous Il-2 for growth). The treated aliquot would then be administered to the patient along with the bulk TIL population that would have been grown separately. The proportion of marked TIL in the final TIL population that would be returned to the patient would probably be between 5-30%. After administration, samples of blood, lymph nodes, and tumor biopsy material (already being obtained as part of the standard TIL protocol) would be tested for the presence of the Neo^R gene by PCR DNA analysis. The marked TIL would be recovered by growth of the tissue sample in TIL medium plus G418. The recovered cells would be studied for phenotypic and cytotoxic properties in order to attempt to learn why TIL immunotherapy is successful in some cases but not in others.